

Summary of Guidelines for the Control of a Suspected or Confirmed Outbreak of Viral Gastroenteritis in a Nursing Home – Updated 03/01/07

Viruses such as norovirus are **highly contagious and very hardy** [they can survive freezing and heating to 60°C (140°F)], so strict adherence to control measures is necessary. Preventive measures should be continued for at least three days after the outbreak appears over, since infected persons continue to shed the virus after they have recovered. The following is a summary of guidelines developed to help facilities control a viral gastroenteritis outbreak – the complete guidelines (available from the Virginia Department of Health at www.vdh.virginia.gov) may be consulted for details.

1. Isolate ill residents from others by confining them to their rooms (until three days after their last symptoms). Group ill people together if possible. Discontinue activities where ill and well residents would be together. Group activities should be kept to a minimum or postponed until the outbreak is over. Residents should not be moved from an affected to an unaffected nursing unit.

Asymptomatic individuals, especially those with cognitive impairment or those who might not reliably report illness or tend to their hygiene, may also need to be confined to their rooms to control the spread of illness. In some situations, confinement of all individuals may be necessary if other control measures have not been or may not be effective.

2. Ill staff should remain out of work for three days following *cessation* of diarrhea and/or vomiting.

3. Minimize the flow of staff between sick and well residents. Staff should be assigned to work with either well residents or sick residents, but should not care for both groups. Staff who go back and forth between ill and well residents, play an important role in transmitting the virus from resident to resident.

4. Staff should wash their hands when entering and leaving *every* resident room.

5. Staff should wear gloves and gowns when caring for ill residents or when touching potentially contaminated surfaces. Masks should be worn when caring for residents who are vomiting. Change gowns, gloves, and masks between contacts with roommates. Gloves should be discarded and hands washed immediately after completing patient care. Remove gowns before leaving the resident's environment. Housekeeping staff should wear gloves and masks when cleaning contaminated or potentially contaminated surfaces or laundry.

6. Use a disinfectant to frequently clean all heavy hand contact surfaces. Restroom surfaces, such as faucet handles, soap dispensers, stall doors and latches, toilet seats and handles, and towel dispensers are heavily contaminated surfaces and require frequent disinfection.

The recommended disinfectant is *freshly made* 10% chlorine bleach solution (i.e., 5,000 ppm sodium hypochlorite = 1 cup bleach to 9 cups water). Since chlorine bleach may impact fabrics and other surfaces, spot test area before applying to visible surface.

For surfaces that could corrode or be damaged by bleach, concentrated phenol solutions may be used (e.g., Lysol, Pinesol) may be effective, but may require **2-4x** more concentration than the manufacturer's recommended concentration to kill norovirus. Peroxomonosulphate (e.g., Virkon-S) may also be effective. Glutaraldehyde (0.5%)-based agents (e.g., Metricide, Cidex, Sonacide, Sporidicin, Hospex, and Omnicide) may also be considered. Other effective cleaners may include accelerated hydrogen peroxide (e.g., Accel TB), and some quaternary ammonium products. **These chemicals can be dangerous. Follow all safety instructions** and mix at the manufacturers' recommended concentrations.

For contamination with fecal material, the cleaning process should include 1) wipe clean with detergent and water, and 2) disinfect with 10% bleach solution (a contact time of ten minutes may be necessary). If the area is a food contact area this disinfection procedure should be followed by a clear-water rinse, and a final wipe down with a sanitizing bleach solution (i.e., 200 ppm sodium hypochlorite = 0.5% chlorine bleach = one tablespoon bleach to one gallon of water).

Vomit should be considered as potentially infectious material and should be immediately covered with a disposable cloth, and doused with a disinfectant to reduce potential airborne contamination. Cleaning staff should use disposable face masks, gloves, and aprons when cleaning up after a vomiting incident. Paper toweling or other toweling used to clean-up liquid vomit should be immediately disposed in a sealed trash bag and properly disposed. Follow the cleaning procedures as for fecal contamination.

Heat disinfection (i.e., pasteurization) has been suggested for items that cannot be subjected to chemical disinfectants. A temperature equal to or greater than 60°C (140°F) should be used.

7. Cleaning procedures that increase the aerosolization of norovirus should not be utilized, such as dry vacuuming carpets or buffing hard surface floors. Cleaning with detergent and hot water, followed by disinfection with hypochlorite (if a bleach-resistant surface) or steam cleaned (5-minute contact time at a minimum temperature of 170 degrees F).

8. Contaminated linen and bed curtains should be carefully placed into laundry bags (to prevent generating aerosols) and washed separately in hot water for a complete wash cycle – ideally as a half load for best dilution.

9. Air currents generated by open windows, fans, or air conditioning will disperse aerosols widely. Air currents should be minimized.

10. It may be prudent to discontinue new admissions and/or visitation to the nursing home until the outbreak is over. If visitation is allowed, visitors should go directly to the person they are visiting and not spend time with anyone else. They should wash their hands upon entering and leaving the room. They should not visit if they are sick.

PLEASE CONTACT YOUR LOCAL HEALTH DEPARTMENT FOR ASSISTANCE AS SOON AS AN OUTBREAK IS SUSPECTED. THE HEALTH DEPARTMENT CAN ALSO PROVIDE FREE LABORATORY TESTING OF RESIDENTS AND STAFF DURING AN OUTBREAK.